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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,752	06/12/2006	Keith R. Minnich	4553-00013	6059

7590 08/11/2010
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EXAMINER

MANOHARAN, VIRGINIA

ART UNIT	PAPER NUMBER
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1797

MAIL DATE	DELIVERY MODE
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08/11/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/531,752	Applicant(s) MINNICH ET AL.	
	Examiner Virginia Manoharan	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 103-132 is/are pending in the application.
- 4a) Of the above claim(s) 103-112 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 113-132 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim 120 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The negative proviso such as: without limitation of the concentration of silica (SiO₂) present in said blowdown stream claimed in claim 120 is nowhere in the specification. However if proper support can be pointed- out, at least the specification fails to provide proper antecedent basis for the above claimed subject matter since they are not positively recited in the specification. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).

Claims 113-132 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a). The claims are rejected for the same reasons as set forth at page 2, section a) of the previous Office action.[Since applicants did not address this rejection, it is assumed they are acquiescing therein].

b). Claim 113 recites the limitation "the product" in section d). There is insufficient antecedent basis for this limitation in the claim.

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c). Claims 121, 122, 126, for examples, as recited, are in improper Markush languages. --- Wherein R is A, B, or C ---;and --- Wherein R is selected from a group consisting of A, B, and C-- - would both constitute proper Markush languages.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 113-132 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heins (6,733,636) in view of Riggs, Jr. (4,746,438).

The above references are applied for the same combined reasons as set forth at pages 5-7 of the previous Office Action.

Applicants' arguments filed June 8, 2010 have been fully considered but they are not persuasive.

Applicants' arguments such as : "There appears to be no description in Heins '636 that teaches or suggests that the key parameters are removal of multi-valent metal cations to a non- precipitating residual level as well as the elimination of non-hydroxide alkalinity to the maximum extent feasible.... These key steps protect against the precipitation of such salts and the scaling on heat transfer surfaces when operating at an elevated pH of above 9, and preferable above 11, as described in the present invention" are not persuasive of patentability because of the following reasons:

Contrary to applicants' assertion, Heins, col. 3, lines 44-47, renders obvious the argued "elimination of non-hydroxide alkalinity" noting the duplication below:

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dioxide. Preferably, all non-hydroxide alkalinity is removed, or substantially so, by introducing the feedwater into a decarbonator, wherein said free carbon dioxide is substantially removed. Next the feedwater is introduced into an

Furthermore, Riggs' disclosure below, col. 1, lines 7 -14, would at least be suggestive of the argued multi-valent metal cations are removed from the feed stream to a non-precipitating residual level"

The present invention relates to a method for substantially removing scale-forming metal cations and dissolved, corrosion-causing acidic gases from water sources contaminated therewith. More particularly, the present invention relates to a method of providing substantially nonscaling and noncorroding water supplies free of metal cation and acidic gas contaminants suitable for use as a supplemental source of boiler feed water.

Thus, the method of providing nonscaling and noncorroding water supplies free of metal cation of the prior art would obviously overlaps the steps to protect against the precipitation of such salts and the scaling on heat transfer surfaces as argued supra. Applicants further argument that the invention of the present case deals with highly contaminated waters and Riggs is intended to purify pre-defined high quality water is of no patentable significance. The product or the fluid –in –process may be new or unexpected, however, product is not the basis of patentability of a method/process claim.

Absolute predictability is not a prerequisite for obviousness rejection All that is required to show obviousness is that the applicant make his claimed invention merely by applying, knowledge clearly present in the prior art. Section 103 requires us to presume full knowledge by the inventor of the prior art in the filed of his endeavor. See *In re Winslow*, 53 CCPA 1574, 1578, 365 F.2d 1017, 1020, 151 USPQ 48, 50-51 (1966). No commercial success is claimed, nor is any other factor indicating No commercial success is claimed, nor is any other factor indicating non-obviousness is seen to exists.

Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

This application contains claims 103-112 drawn to a nonelected invention. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia Manoharan whose telephone number is 571-272-1450.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola, can be reached on 571-272-1444.

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The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Virginia Manoharan/
Primary Examiner, Art Unit 1797